

**ABSTRACT**

A method of determining a spatial hierarchy for polygon data, comprises obtaining a switching range, and determining a polygon density for the spatial hierarchy, using the switching range and a cube-root scaling factor. Another method of determining  
5 a spatial hierarchy for polygon data, comprises determining a cube-root scaling factor based on an altitude parameter, and using the cube-root scaling factor to scale level-of-detail switching ranges for the spatial hierarchy. The methods may be embodied in a computer program (or some unit of code) stored on a computer readable medium, such as a compact disc (i.e. CD), and/or transmitted via a computer network, such as the  
10 Internet, or another transmission medium.